

Abstract

Title: Comparison of rhythmic stabilization according to Kabat with the techniques used in practice.

Objectives: The main aim of this Master's thesis was to measure and compare electrical activity and the level of co-contraction of selected muscles which were exposed to different techniques - rhythmic stabilization according to Kabat and technique used in practice - technique „shove“, via electromyography.

Methods: This is an experimental study. The sample consisted of 7 probands (2 men and 5 women). With the use of surface electromyography it was obtained electromyographic activity record of m. quadratus lumborum sin., m. obliquus internus abdominis sin., m. rectus abdominis sin., m. obliquus externus abdominis dx. Acquired EMG signal was analyzed and then a standardized level of muscle activity during rhythmic stabilization according to Kabat and the „shove" technique. Afterward a dynamic co-contraction level was evaluated.

Results: The measurement results showed that there's no enlarge electrical activity of muscles involved in PNF diagonals in unstable lying down on the right side position. The results of this study did not prove that electrical activity of selected muscles increased during rhythmic stabilization. We can not confirm the increased level of co-contraction during the rhythmic stabilization as well.

Keywords: electromyography, pelvis, PNF, surface electromyography, proprioceptive neuromuscular facilitation, rhythmic stabilization, stability, stabilization